REPORT / RECOMMENDATION



To: Edina Transportation Commission Agenda Item #: VI. D.

From: Joe Feriancek − Traffic Safety Coordinator Action

Action

Discussion \square

Date: March 20, 2014 Information

Subject: Traffic Safety Committee Reports of February 5, 2014 and March 11, 2014

Action Requested:

Review and recommend Traffic Safety Committee (TSC) Reports of Wednesday, February 5, 2014, and Tuesday March 11, 2014, be forwarded to City Council for approval.

Information / Background:

It is not anticipated that residents will be in attendance at the meeting regarding any of the attached issues. An overview of the comments from the Edina Transportation Commission (ETC) will be included in the staff report provided to Council for their April 22, 2014, meeting.

Attachments:

Traffic Safety Committee Report for February 5, 2014. Traffic Safety Committee Report for March 11, 2014.

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TRAFFIC SAFETY COMMITTEE REPORT

Wednesday, February 5, 2014

The Traffic Safety Committee (TSC) review of traffic safety matters occurred on February 5. The City Engineer, Public Works Director, Transportation Planner, Traffic Safety Coordinator, Sign Coordinator, Assistant City Planner and the Police Traffic Supervisor were in attendance for this meeting.

From these reviews, the recommendations below are provided. On each of the items, persons involved have been contacted and staff recommendation has been discussed with them. They were informed that if they disagree with the recommendation or have additional facts to present, they can be included on the March 20 Edina Transportation Commission and the April 22 City Council agenda.

SECTION A:

Request on which the Committee recommends approval:

A1. Request for directional signs leading to the Normandale Lutheran Church.

This request is from the Normandale Lutheran Church. They would like to add a directional sign near Benton Avenue and Normandale Road directing people straight ahead. Also, a second sign on West 50th Street near the TH 100 exit ramp, directing people south towards the church.

These would not be the first Church directional signs placed in Edina; signs have been put up for Edina Community Lutheran, Good Samaritan, and St. Albans has placed signs in the past.

City Code

Section 36-1669. Church directional signs

Church directional signs shall be permitted in all districts provided the total area of such signs shall not





Map: Sign location at corner of Benton Ave and Normandale Rd



Map: Sign location at corner of Eden Ave and Normandale Rd
After review the staff recommends approval of directional signs. The signs must conform to the Minnesota Manual on Uniform Traffic Control Devices (MNMUTCD). Also, approval from MNDOT is required if the signs are placed in their right of way.

A2. Request to add directional signs to the main entrance of Creek Valley Elementary School.

This request comes from the Creek Valley Elementary School. The school would like to add the signs to help visitors find the main entrance of the school. They would like to add a sign for northbound traffic on Gleason Road north of Creek Valley Road. This sign would indicate the main school entrance is ahead.



Picture: Creek Valley Elementary Directional Sign Locations

After review the staff recommends approval of a directional sign on Gleason Rd. north of Creek Valley Rd. The sign must conform to MNMUTCD standards.

SECTION B:

Requests on which the Committee recommends denial:

B1. Request for a stop sign on Lynmar Lane at Hazelton Road.

This request comes from a resident living near the intersection. The requestor states; vehicles dangerously turn onto Hazelton Road from Lynmar Lane at unsafe speeds. Drivers do not pay attention to traffic on Hazelton Road, making drivers on Hazelton Road yield to them to avoid collisions with pedestrians and parked cars. The requestor would like for a stop sign to be installed on Lynmar Lane.

Currently this is an uncontrolled 3 way intersection which also has a driveway to an apartment complex on the north side. Hazelton Road, westbound curves to the north immediately after the intersection.



Map: Hazelton Rd and Lynmar Ln

Hazelton Road is approximately 29 feet wide, with parking on both sides of the street. There is a sidewalk on the south side of Hazelton Road. Lynmar Lane is approximately 28 feet wide, with no parking

on the west side of the street. There are two recorded auto crashes at the intersection.

Requirements for a stop sign can be found in the Appendix section 1A.

A 24 hour traffic count was performed at the intersection. During the study a combined total of 703 vehicles, bicycles, and pedestrians entered the intersection from all approaches. This is below the 2,000 units required. Below is the breakdown for the daily total turning movements at the intersection.

The total traffic from Hazelton Road and Lynmar Lane were nearly the same, 359 and 344 respectively.

After discussion the staff recommends denying the request for a lack of warrants.



Picture: Hazelton Rd and Lynmar Ln from the east

24 Hour Traffic Study Totals

	Thru	Right	Left	U- Turn	Peds	Total	
WB	77		211	3	3	294	
EB	45	14	-	1	5	65	
NB	-	304	38	0	2	344	

B2. Request for additional signage directing people to Ohms Lane at Metro Boulevard and 72nd Street.

This request comes from a business in the complex at the corner of Ohms Lane and 72nd Street. The requestor states that visitors to their building are often driving all over the commercial area and up and down Ohms Lane trying to sort out where 7201 Ohms Lane is. The requestor would like to add signage to or near the W72nd Street sign at Metro Boulevard informing drivers Ohms Lane is to the west. This proposed sign would simply be Ohms Lane with an arrow.

After discussion staff recommends denying the request.



Map: Possible Ohms Lane Directional Sign Location



Picture: Metro Blvd and 72nd St

SECTION C:

Requests that are deferred to a later date:

C1. Request for the removal of the No Right Turn on Red sign at the intersection of Parklawn and 77th Street.

This request comes from a former City of Edina employee. The requestor does not believe the No Right Turn on Red sign at the intersection of 77th Street and Parklawn Avenue serves any purpose. They would like to know why the sign was installed and see the sign removed.

Parklawn Avenue southbound has 2 right turn lanes and one left turn lane. 77th Street westbound has 3 lanes with one left turn lane only. Eastbound 77th Street has 3 lanes with 2 left turn lanes. There is No Turn on Red signs for both westbound 77th Street and southbound Parklawn Avenue. 2013 MSA traffic counts resulted in 8500 vehicles and an 85th percentile speed of 33.5 mph for Parklawn Avenue north of 77th Street. 2013 MSA traffic counts resulted in 13000 vehicles and an 85th percentile speed of 32 mph for 77th Street west of Computer Avenue. There are 5 reported crashes at this intersection since 2009.



Map: 77th St and Parklawn Ave

This intersection was looked at during the December 3, 2008 traffic safety review. At the meeting staff recommended denial of the request to remove the No Turn on Red sign at southbound Parklawn Avenue to westbound 77th Street. This was based on a previous study done on this intersection. SRF Consulting Group, Inc. was contracted to study this



Picture: 77th St and Parklawn Ave from the north

intersection. They felt No Turn on Red was warranted because of the dual right turn lanes and pedestrian crosswalk SRF stated that allowing a right turn would provide little operational benefits. The traffic signal is set-up to return to the southbound right turn movement and eastbound left turn movement. The only time the southbound right turn should be red is during the westbound 77th Street movement. SRF stated that if the signal timing is optimal, there should be few opportunities to turn right on red during the heavier traffic volume times. Drivers may feel they are unnecessarily waiting during off-peak periods, but it should only be for a short amount of time.

A traffic study was performed on this intersection. The peak hour was found to be from 4:45 to 5:45 pm. The average delay for vehicles making a right turn on southbound Parklawn Avenue was calculated. During the peak hour 115 vehicles stopped and 255 vehicles did not have to stop. The average delay for vehicles which had to stop at the light was 26 seconds. The average delay for vehicles traveling westbound of 77th Street was calculated. During the peak hour 195 vehicles stopped and 204 vehicles did not have to stop. The average delay for vehicles which had to stop at the light was 48 seconds.

After discussion the staff recommends further study of the intersection to determine if the signal timing is optimal and to find the pedestrian impact on the intersection.

C2. Request for a painted crosswalk at the intersection of Sunnyside Road and Grimes Avenue.

This request comes from a resident who lives in the area. The requestor states that vehicles are not stopping for pedestrians at the intersection of Grimes Avenue and Sunnyside Road. There is a stop sign on southbound Grimes Avenue. Curb ramps exists for crosswalks as shown in the picture. There are no recorded crashes at the intersection.

This request was considered in the Traffic Safety 2013 December 4, Committee meeting. At the meeting the staff recommended denying the request since the intersection did not meet minimum warrants for pedestrians crossing in a two-hour window. After discussion the Edina Transportation recommended Commission

further into the intersection. It was brought up that there was an agreement made in the April 21, 2008 special city council meeting to install

crosswalks at this intersection.

The material for referencing the city council decision is located in the Appendix for review.

If it is assumed the intersection is to receive crosswalks as a result of the city council decision, a traffic gap study was performed to determine the type of markings for the crosswalk. The requirements can be found in the Appendix section 2A.

The gap studies were done during the peak hour of 5:15 to 6:15 pm. The average gaps per 5 minute period for crossing Sunnyside Road were 16.8 gaps on the west side of the



Map: Sunnyside Rd and Grimes Ave



Picture: Sunnyside Rd and Grimes Ave from north

intersection and 19.1 gaps on the east side of the intersection. For over 5 gaps it is recommended to use pavement marking and signage only.

After discussion the staff recommended denying the request. However, after feedback from the ETC further pedestrian and traffic counts will be done along with discussions with the residents of the area in the Spring of 2014.

APPENDIX

Sunnyside Road and Grimes Avenue

Crosswalk approval information from City Council Meetings MINUTES OF THE SPECIAL MEETING OF THE EDINA CITY COUNCIL HELD AT CITY HALL APRIL 21, 2008, 7:00 P.M

Mr. Houle called to the Council's attention the Edina Transportation Commission's Resolution calling for approval of the NE Edina Transportation Study Residential Safety Improvements, adopted by the Commission at their meeting April 17, 2008.

Public Comment

Mayor hovland stated his intent of calling upon Bruce Christensen to give an overview of the proposed compromise plan as per the e-mail sent April 21, 2008 from Bruce Chistensen to the Mayor and Council. An excerpt of the e-mail detailing elements of the proposed compromise follows;

"4/18/08 - Proposed Compromise Traffic Plan

- 1. Elimination of all speed humps, horizontal street adjustments (street re-alignments, chokers, one-way triangles, etc). This will have a dramatic impact in reducing signage requirements.
- 2. Preserve the vast majority of pedestrian safety improvements. With a few minor exceptions described in number 4 below. Given that the realignment is not supported by the survey, the paver crosswalks should use existing curb cuts/boulevard connection, paths to sidewalk where possible. Paver selection & design biased toward minimum noise pollution.
- 3. Install 1 1/8th inch raised paver crosswalk at all entry points to the neighborhood. These raised crosswalks will signal drivers entering the neighborhood to slow down, and yet will not require additional signage when placed near stop signs. The raised crosswalks would occur at the following intersections: Country Club Road & Arden, Country Club Road & Bruce, Country Club Road & Wooddale, Wooddale & Sunnyside, Browndale & Sunnyside, on Sunnyside at Arden. Not certain where Country Club & Browndale. Conditions of acceptance include no signage requirement and approval by Fire Chief & School District (school bus drivers).
- 4. We don't believe in using the islands at Wooddale & Country Club, Wooddale & Sunnyside, Edina Blvd. & Sunnyside, Drexel & Sunnyside, Casco & Sunnyside for pedestrian crosswalks. We'd prefer use of existing walks on north side of Sunnyside and south side of Country Club. Our reasoning is as follows:
 - a. Safety this requires crossing two streets versus one.
 - b. Maintenance of the island and walkways may not occur.
 - c. Natural pedestrian traffic is to the north side of Sunnyside and south side of Country Club roads.
 - d. Loss of green space.
 - e. Impairment of historic asset.
- 5. We also agreed that the City should reduce neighborhood speed limit to 25 mph."

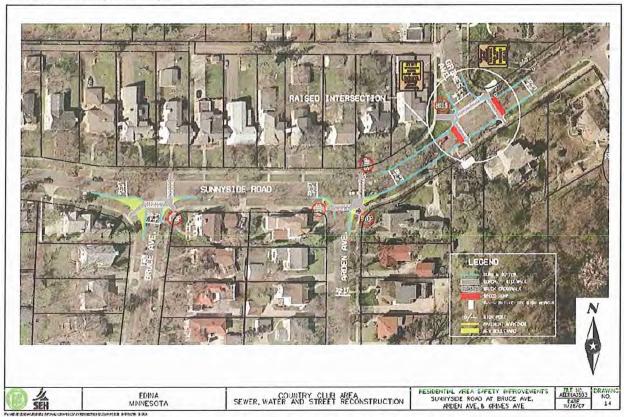
Jennifer Janovy, 4616 Inglewood Avenue, speaking on behalf of the Morningside Neighborhood Association Steering Committee, read a statement and used graphics to depict the Morningside area responses to the comment cards. She stated they do not support the North East Edina Transportation Study Residential Safety Improvements, and asked that all vertical measures be removed from the Traffic Safety Improvements. *Ms. Janovey outlined the improvements her group wished to have maintained;* the sidewalks on the north side of 42nd from Oakdale to France and on Grimes from 42nd to Inglewood, *the crosswalk on Sunnyside at Grimes*, and the center island with mid-block crosswalk on W 44th at Kojetin Park. They requested that the following be added: sidewalk on France Avenue from 47th to Sunnyside and a *stop sign at the crosswalk on Sunnyside at*

Grimes. They would like more police presence. Ms. Janovey said the steering committee supported the alternative proposal and pointed out they did not favor raised crosswalks.

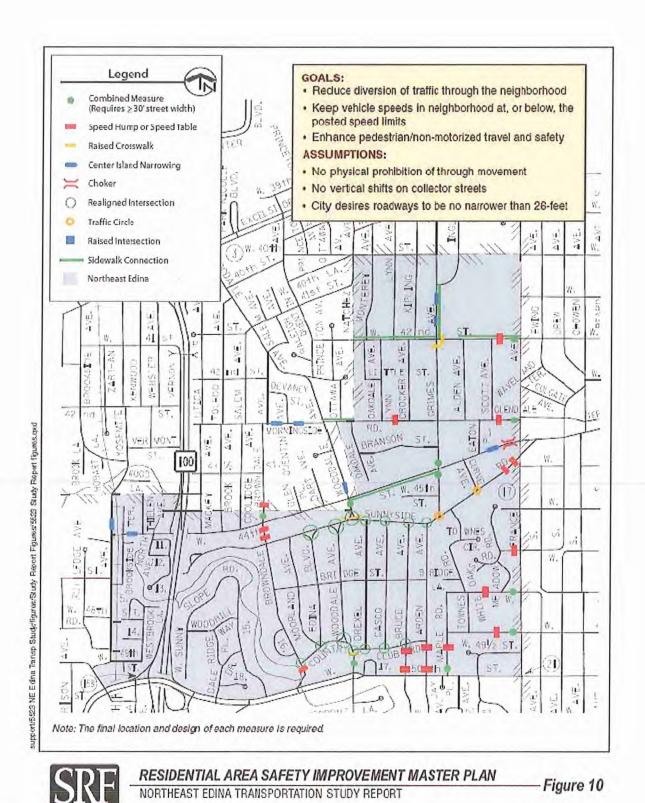
Member Housh moved that the Council accept the compromise plan presented by the Country representatives provided that i.) Sidewalks be installed across existing islands as recommended by the Northeast Edina Traffic Study, ii.) The final location of crosswalks be determined by the City Engineer based upon the conceptual locations shown in the compromise plan, and iii.) the proposed reduction in speed limits to 25 mph be deferred to a later date. Further, i.) all recommended vertical and horizontal realignments of streets in the northeast Edina study area outside of the Country Club district be deleted as planned improvements provided that ii.) Pedestrian-related improvements in this area be pursued at the appropriate time. Further, pedestrian-related improvements for the Morningside area be undertaken per the recommendations of the Morningside Neighborhood Association with the understanding that the stop signs proposed for the Grimes and Sunnyside intersection will be referred to the Traffic Safety Committee for review and recommendation.

The NE Edina Feasibility Study does not specifically state there will be a crosswalk at the intersection. In Appendix D – SHE Feasibility Study – Concept Example; a map shows crosswalks at the intersection of Sunnyside Road and Grimes Avenue, but it is stated on the map (subject to change during implementation and design process.)

The Master Plan shows a traffic circle being installed at the intersection of Sunnyside Rd and Grimes Ave. A close up of the proposed improvements to the intersection is shown below.



Picture: Safety improvements at Sunnyside and Grimes from 12-4-07 public hearing



Picture: Residential Area Safety Improvement Master Plan – Figure 10 Sunnyside and Grimes

Appendix

Guidance for the installation of Local Traffic Control Signs

City of Edina Local Traffic Control

1A. (MNMUTCD 2B.4) YIELD or STOP signs should be used at an intersection if one of more of the following conditions exist;

- A. An intersection of a less important road with a main road where application of the normal right-ofway rule would not be expected to provide reasonable compliance with the law;
- B. A street entering a designated through highway or street; and/or
- C. An un-signalized intersection in a signalized area.

In addition, the use of YIELD or STOP signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:

- A. The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more the 2,000 units per day;
- B. The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or
- C. Crash records indicate that five or more crashes that involve the failure to yield the right-of-way rule have been reported within a 3-year period, or that three or more such crashes have been reported within a 2-year period.

YIELD or STOP signs should not be used for speed control.

2A. (Edina Local Traffic Control Policy) Marked Pedestrian Crosswalks

- A. Marked crosswalks are placed at locations that are unusually hazardous or at locations not readily apparent as having pedestrian movement.
- B. Marked crosswalks will only be placed in an area that has in excess of 20 pedestrians crossing for a minimum of two hours during any eight hour period.
- C. Marking for crosswalks will be established by measuring the "Vehicle Gap Time". This is the total number of gaps between vehicular traffic recorded during the average five minute period in the peak hour. Criteria for markings are:
 - 1. More than five gaps Pavement marking and signage only.
 - 2. Four to five gaps add activated pedestal mounted flasher
 - 3. Less than three gaps add activated overhead mounted flasher.
- D. Crosswalks will not be placed on arterial roads or roads with a speed limit greater than 30 mph unless in conjunction with signalization.
- E. Other conditions that warrant crosswalks:
 - 1. Routes to schools
 - 2. Locations adjacent to libraries, community centers, and other high use public facilities.
 - 3. Locations adjacent to public parks.
 - 4. Locations where significant numbers of handicapped persons cross a street.
 - 5. Locations where significant numbers of senior citizens cross a street.
- F. Crosswalks will only be placed at intersections.

5A. (MNMUTCD 2B.54) No Turn on Red signs

If used, the NO TURN ON RED sign should be installed near the appropriate signal head.

A NO TURN ON RED sign should be considered when an engineering study finds that one or more of the following conditions exists.

- A. Inadequate sight distance to vehicles approaching from the left (or right if applicable);
- B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
- C. An exclusive pedestrian phase;
- D. An unacceptable number of pedestrian conflicts with right-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities; and
- E. More than three right-turn-on red accidents reported in a 12-month period for the particular approach.
- F. The skew angle of the intersecting roadways creates difficulty for drivers to see traffic approaching from their left.

TRAFFIC SAFETY COMMITTEE REPORT

Tuesday, March 11, 2014

The Traffic Safety Committee (TSC) review of traffic safety matters occurred on March 11. The City Engineer, Public Works Director, Transportation Planner, Traffic Safety Coordinator, Sign Coordinator, and the Assistant City Planner were in attendance for this meeting.

From these reviews, the recommendations below are provided. On each of the items, persons involved have been contacted and staff recommendation has been discussed with them. They were informed that if they disagree with the recommendation or have additional facts to present, they can be included on the March 20 Edina Transportation Commission and the April 22 City Council agenda.

SECTION A:

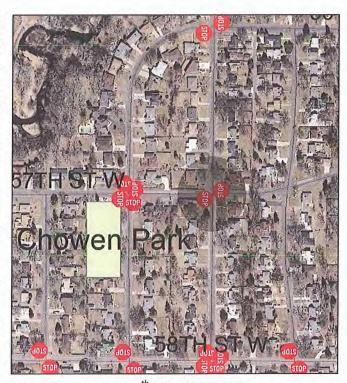
Request on which the Committee recommends approval:

A1. Request to make the intersection of Beard Avenue and 57th Street an All-Way stop, or to switch the current stop signs from 57th Street to Beard Avenue.

This request comes from a resident of the neighborhood. The requestor states; vehicles run through the stop sign at 57th Street and Beard Avenue. This intersection is at the bottom of a hill and the requestor is worried of the safety issue of vehicles running the stop sign and the high amount of children who play in the area. The requestor would either like to switch the street the stop signs are located on, or make the intersection an All-Way stop.

Currently there are stop signs located on 57th Street for eastbound traffic. As can be seen in the Traffic Control Map, there are All-Way stops 1 block to the west and 1 block to the south. Also, Chowen Park is 1 block to the west from the intersection. There is a Stop Ahead sign for eastbound traffic as can be seen in the picture. There is 1 recorded auto crash at the intersection, from 2001.

The requirements for a Multi-Way Stop are located in the Appendix section 1B.



Map: Beard Ave and 57th St Traffic Control

A 24 hour video traffic study was performed on the intersection. There were a total of 516 vehicles entering the intersection, 314 on 57th Street and 202 on Beard Avenue. There were a total of 62 pedestrians entering the intersection. During the study 19 vehicles did not stop for the stop signs on

57th Street, which is 6 percent of the vehicles. Of the 19 vehicles not stopping, 16 were westbound, which is 16 percent of the WB vehicles.

After discussion the staff recommends the placement of an advanced stop ahead sign for westbound traffic. Also, the data from the intersection will be forwarded to the Edina Police Department for enforcement.



Picture: Beard Ave and 57th St from the west

A2. Request to make the stop signs at the intersection of Sunnyside Road and Wooddale Avenue stand out.

This request comes from a resident who lives near the intersection. The requestor states; vehicles ignore the stop signs at the intersection of Sunnyside Road and Wooddale Avenue. Specifically the vehicles go through westbound stop signs when making a right turn onto Wooddale Avenue. The requestor would like something to be done to make the stop signs stand out.

Currently there are stop signs on all three legs of the Sunnyside Road and

Wooddale Avenue intersection. There are brick inlayed crosswalks on the west and north sides of the intersection as can be seen in the map below. The turning movements of the intersection are in the table below, Wooddale Avenue had a total of 1135 vehicles and Sunnyside Road had a total of 2021 vehicles. There are no recorded crashes at the intersection.



Picture: Sunnyside Rd and Wooddale Ave facing west



Map: Sunnyside Road and Wooddale Avenue

Sunnyside Road and Wooddale Avenue

				Т	urning N	/lovement	S				
SB				WB				EB			
Right	Left	U Turn	Total	Right	Thru	U Turn	Total	Thru	Left	U Turn	Total
885	244	6	1135	318	498	1	817	487	717	0	1204
	Wooddale Avenue Total = 1135					Sunnyside Road Total = 2021					

After the discussion the staff recommends adding red reflective strips to the stop sign posts at the intersection to increase visibility. Also, the Edina Police Department will be notified regarding enforcement of vehicles not stopping at the intersection.

SECTION B:

Requests on which the Committee recommends denial:

B1. Request to make Mavelle Drive No Parking on one side of the street between Cornelia Drive and Glouchester Avenue during the winter, and during the school pickup hours.

This request comes from a resident living in the area. The requestor states; Mavelle Drive between Cornelia Drive and Glouchester Avenue becomes too narrow in the winter for two vehicles to safely use the road. This issue is increased during the school drop off hours. The requestor would like to make Mavelle Drive No Parking on one side of the street between Cornelia Drive and Glouchester Avenue during the winter, and possibly during the school hours.



Map: Mavelle Dr between Cornelia Dr and Glouchester Ave

This street is across from the Cornelia School. There are no recorded crashes on this stretch of road. A traffic count of Sandell Avenue to the east resulted in an ADT of 353 vehicles with an 85th percentile speed of 24.5 mph. However, this may not necessarily be an accurate representation of Mavelle Drive, being 4 blocks to the east of the stretch of roadway being considered.

Requirements for Parking Restrictions are located in the Appendix section 3A.



Picture: Mavelle Dr looking east

Mavelle Drive is 31 feet from back of curb to back of curb. Measurements were taken on Feb. 18th, and 22 feet of roadway was passable due to the snow piles on the sides of the road.

After discussion the staff recommends denying the request. Staff believes the street width is adequate (and typical of Edina local streets) and that there is unusually heavy snow accumulation at this time.

SECTION C:

Requests that are deferred to a later date:

C1. Request to add permanent speed bumps to the Pamela Park Drive off of 62nd Street.

Residents have expressed concern over the volume and speed of vehicles traveling on the drive. This request is for the city to add speed bumps to the Pamela Park Drive off of 62nd Street. The speed bumps will be used as a measurement to reduce the speed of vehicles on the drive, which is 18 feet wide and approximately 500 feet long.

After discussion staff recommends further study is needed, including speed counts and to look into the possible impact of speed humps or tables.



Picture: Pamela Park Drive facing south



Map: Pamela Park Driveway

C2. Request to add "No Truck Traffic" signs at Washington Avenue and 3rd Street.

This request comes from a resident living near the intersection of 3rd Street and Monroe Avenue. The resident has seen several semi-trucks and trailers going through this intersection and the neighborhood. This same observation has been made by another resident in December 2013. The requestor would like to see a "No Truck Traffic" sign placed at 3rd Street and Washington Avenue to help inform the truck drivers not to drive on the residential streets. placed Additional signs intersections of Maloney Avenue and Monroe Avenue, and Maloney Avenue and Adams Avenue would further deter semi-trucks from entering the neighborhood.



Picture: 3rd St and Washinaton Ave lookina west

After discussion the staff recommends further study into the traffic issue before making a recommendation.



Map: Proposed No Truck Traffic signs

SECTION D:

Other traffic safety issues handled.

- D1. Request to look into sightlines and parking on Morningside Road and Scott Terrace. Requestor states that it's hard to see cars coming onto Morningside Road from Scott Terrace. Scott Terrace is already no parking on one side. Resident agreed the snowbanks were the major factor and didn't request any action be taken.
- D2. Request to change sign from "van parking only" to "Vernon Terrace parking". Requestor was informed the City of Edina does not control signs in private parking lots.

Appendix

Guidance for the installation of Local Traffic Control Signs

City of Edina Local Traffic Control

1B. (MNMUTCD 2B.7) Multi-Way STOP

The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
- C. Minimum volumes:
 - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
 - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
 - 3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.
- D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Other criteria that may be considered in an engineering study include:

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

3A. Parking Restrictions

The purpose of the on-street parking policy is to enhance the safety of drivers and pedestrians, as well as to allow for effective parking capacities at times when parking is in high demand.

Parking restrictions may be warranted in the following conditions:

- A. Identified bus stops.
- B. Prohibiting parking near an intersection to improve sight lines.
- C. Where the street is too narrow to allow safe passage if parking is permitted.
- D. On collector and arterial streets if the curb lane is required for thru traffic during peak periods.
- E. In conjunction with school and pedestrian crosswalks.
- F. In conjunction with turning lanes and other lane restrictions when the curb lane is used for thru traffic.
- G. At connecting intersections to controlled access highways.
- H. On roadways designed with four or more lanes.

Handicap parking is not permitted on a public street, and parking controls will not be installed for business, commercial, or industrial interest when it would adversely affect normal residential parking.